THE FACTORS INFLUENCING ENTRY LEVEL AIRLINE PILOT RETENTION: AN EMPIRICAL STUDY OF RYANAIR

Marina Efthymiou[1], David Usher[2], John F. O'Connell[3],*, David Warnock-Smith[4], Gerry Conyngham[1]

[1]DCU Business School, Dublin City University, Dublin 9, Ireland
[2]Irish Aviation Authority, The Times Building, 11-12 D'Olier Street, Dublin 2, Ireland
[3]Centre for Aviation Research, School of Hospitality and Tourism Management, University of Surrey, Guildford, Surrey, GU2 7XH, UK
[4]School of Aviation and Security, Buckinghamshire New University, High Wycombe Campus, Queen Alexandra Road, HP11 2JZ, UK

Abstract

Pilot retention has been a significant concern for airlines that find it difficult to recruit and maintain pilots who are classified as high skilled employees. The aim of this research is to determine the factors that influence pilot retention and investigate if these factors differ based on gender, age and level of commercial flying experience of pilots. A mixed methods approach was used. Quantitative information was collected via an online survey sent to 394 Ryanair pilots. Nine in-depth expert interviews were conducted. The pilots ranked, in order of importance, a number of retention-influencing factors spanning seven areas, identified with the help of interviewees and secondary research. The results of the survey indicate that the most important retention influencing factors are being based at home, working a fixed roster pattern for a financially stable airline, being paid a competitive salary and having job security. This research provides qualitative evidence that airlines can use to develop or update their financial and non-financial benefits packages and where necessary, amend work practices and maximise pilot motivation to stay.

Key words: Pilot retention; Ryanair; Airline pilots; Airline staff; Retention of high skilled employees; Flight crew.

Highlights

- Airlines generally face high rates of pilot turnover.
- Seven category areas containing 30 subcategories influencing pilot retention are identified.
- 394 Ryanair pilots assessed their retention-influencing factors in the seven category areas.
- The most important retention factors are: being home based, having a fixed roster, financially-stable carrier, competitive salary and job security.

1. Introduction

Pilots are one of the most valuable resources to the airline industry. Because of increasing aircraft utilisation and stricter flight time limitation regulations[1], each commercial aircraft requires between 10 and 16 pilots. Moreover, with a mandatory retirement age of 65 for commercial pilots, the civil aviation industry is expected to lose approximately 3% of its pilots each year over the next ten years with the need to recruit and train 110,000 new pilots by 2028 (CAE, 2018). Air traffic growth in regions with developing air transport markets such as the Gulf States and China, has already created a demand for experienced pilots, luring them away from European airlines with offers of extremely generous pay and benefits packages (Bombardier, 2016; CAE, 2017) which are well beyond the western airlines' ability to compete with. In this competitive pilot employment market, where attractive alternative employment opportunities abound, pilot turnover rates at some airlines are relatively high. A 2001 study by the Air Transport Association of Canada suggested that when companies were grouped by type of operations, 34% of air taxi operators, 50% of cargo operators, and 50% of commuter operators reported pilot turnover rates in excess of 30% (Kiernan, 2018). The level of disruption as a result of them vacating their employment is significant as is the cost of recruiting, training and inducting their replacements.

Labour turnover has been defined by Robbins and Judge (2007, p. 72) as '…the voluntary and involuntary permanent withdrawal from an organization". Employee turnover has been empirically researched in three domains: causes and consequences of employee turnover and workplace retention strategies (Yang et al., 2012). Turnover disrupts various productivity related outcomes and leads to higher cost, reduced effectiveness and efficiency, but also to a dysfunctional organization climate. Substantial research has been conducted in voluntary turnover. Nevertheless, the turnover of pilots is under-researched.

Some research has been conducted related to the airline employment relations (Fraher, 2017, 2019; Harvey and Turnbull, 2006, 2012; Maxwell and Grant, 2018; Warnock-Smith et al., 2020). Brannigan et al. (2019) have conducted an extensive research on employment and working conditions of aircrews in the EU internal aviation market for the European Commission. Most of the research on pilots' turnover has been conducted in the context of military as military pilots leave the force and join commercial airlines. Some of the most high profile pilot issues have been noticed in Ryanair. The Ryanair Holdings plc is Europe's largest airline group with 2,400 daily flights served by 470 aircraft. Ryanair employs over 19,000 staff in 83 bases. O'Sullivan and Gunnigle (2009) suggest that Ryanair has avoided and suppressed unions for a number of years, but the Irish Air Line Pilots' Association (IALPA) has challenged it. In 2017 and 2018, Ryanair had to cancel thousands of flights due to pilot shortages. The Chief Executive Officer characterised the pilots as "glorified bus drivers" who were "very well paid for a very easy job" where "the computer does most of the flying" (Irish Times, 2017). These comments angered many of the pilots who are proud of the skills they possess and perceived it as an attack on their professional reputations. Even though the pilots were offered a 20% pay increase, Ryanair's failure to allow for the higher order needs of their employees led to strike action and eventually to union recognition and in a significant number of cases, long serving, experienced pilots left Ryanair to work at other airlines. A number of papers have been published about Ryanair (e.g. Barrett, 2004; O'Connell and Williams, 2005), but very few consider Human Resources Management (HRM).

The term 'Entry-level pilots' refers to a newly hired pilot in the employment of an airline. Harvey and Turnbull (2012) suggest that young pilots in Ryanair are only concerned about accumulating flying hours and then moving to another airline. Retention of high skilled employees is vital for any company and a better understanding of how to retain employees is critical. The aim of this paper is to determine

[1] In Europe, the limit is up to 900 flight hours in a calendar year with no more than 100 hours permitted in any consecutive 28 days.

the factors that influence pilot retention and investigate if these factors differ based on gender, age and level of commercial flying experience of pilots. The contribution of this paper is to examine one of the most important parts of labour in the airline industry and shed light into one of the most controversial employers in the aviation industry manages pilot employee turnover and retention.

The rest of the paper is organized as follows. In section 2, we present a brief literature review regarding pilot employee relations. In Section 3, we provide the methodological approach followed. Section 4 contains the research results, as well as a discussion on the factors that have affected pilots' retention at Ryanair. Finally, in Section 5, we conclude the paper and present some possible future lines of research.

2. Literature review

Harvey and Turnbull (2006) suggest that the airline pilot is not a typical employee as they have substantial collective bargaining power and there is a disincentive for a pilot to leave an airline. There is low substitutability of pilots due to the extensive training for their commercial pilot license and the type rating. Their high bargaining power has been displayed by strikes that have stopped airline operations for days (e.g. Ryanair pilot strike in 2019). Fraher (2019) argues that pilot representation is often fragmented and usually increases the time required to reach labour agreements, increasing their frustration and leading them to strikes. On the other hand, should pilots move to another company they may lose their seniority privileges (e.g. preferred rosters), but more importantly the core pilot skills cannot be transferred to another industry. Pilot marketability is high (Fraher, 2019), but based on Gorman and Sandefurs' (2011) views on expert knowledge workers, their career autonomy is restricted.

For an airline to have a sustainable pilot retention strategy a range of motivations must be satisfied. Three widely recognised theoretical frameworks discuss motivation from the viewpoints of goals, decisions and influence. The content theories of Maslow (1943), Alderfer (1969) and Herzberg et al. (1959) view motivation from the perspectives of desired outcomes or goals. Process theories such as Vroom's (1964) expectancy theory, Adams' (1963) equity theory and Locke's (1968) goal setting theory, are concerned with the decision-making process of why an individual decides to pursue a certain goal. Their choices will be based on their own preferences, the type and level of available rewards and the potential outcomes of their work. Job enrichment theories such as that espoused by Hackman and Oldham (1976) looks at the job itself and the primary source of motivation an organisation can use to influence its employees to work.

If an organisation does not fully understand the reasons behind peoples' decision to leave, it cannot remedy the situation by developing effective retention strategies (Hom, et al., 2008). Turnover research dates back to 1910s, with its formative years in 1920s-1960s (Hom et al., 2017). After the 1960s, the research concentrated on workplace conditions and its perceptions as a main turnover factor (Hom et al., 2017). Dittrich and Carrell (1979) researched the role of equity, Mitchell and Albright (1972) looked into expectancy, Udechukwu (2009) examined motivational need, Bartol (2017) investigated the role of professionalism in staff turnover and Earnest et al. (2011) linked realistic job previews with turnover.

Shanker (2019) suggest that the reasons for employees quitting their jobs are well researched, whereas the factors that affect employees' retention are less known. Alvesson (2000) suggests that one key determinant of the retention of staff members that are valuable to an organisation is their loyalty to that organisation. On the one hand, Porter et al. (1974) suggest that organisational commitment is a stronger factor than job satisfaction. On the other hand, the commitment-to-satisfaction mediation model argues that based on a rationalisation process commitment to an organisation includes a positive attitude towards the job (Bateman and Strasser, 1984). Whereas a

third perspective suggests that both satisfaction and commitment contribute uniquely to turnover as per the independent-effects-model (Dougherty et al., 1985; Tett and Meyer, 1993).

The job embeddedness theory, that discusses why people stay, explains additional variance in turnover beyond that explained by traditional determinants (Hom et al., 2017). Mitchell et al. (2001) focused on why people stay rather than on how they leave. They looked at three dimensions (links, fit and sacrifice) by surveying retail employees. Mallol et al. (2007) used the job embeddedness theory to explain turnover of a culturally diverse workforce.

The voluntary turnover theory is not static. Lee et al. (2004) suggest that new ways of thinking about turnover are needed. Maertz and Campion (1998) suggest that the reason for the limited explanatory power of organizationally focused turnover theories is the emerging body of empirical research that provides insight into many off-the-job factors. Empirical research constantly enriches the theoretical frameworks. For instance the occurrence of 'boomerang employees' refers to employees who quit but later return (Shipp et al., 2014; Swider et al., 2017) and is now an important point in employment theories.

Alvesson (2000) suggests that one key determinant of the retention of staff members that are valuable to an organisation is their loyalty to that organisation. In a difficult economic environment, large-scale redundancies have been seen to lead to higher voluntary turnover among those "survivors" who remain at an organisation (Trevor & Nyberg, 2008; Allen, et al., 2010). This is particularly important for knowledge-based businesses and those, such as airlines, that rely on highly skilled personnel. An example of this can be seen at Boeing where the almost catastrophic downturn in the aviation industry in the aftermath of the September 2001 terrorist attacks in New York, cut its order book in half (Ruddock, 2008). During previous downturns, Boeing had made many of its skilled workforce redundant. With personal expenses accumulating, these people secured employment in other industries, such as companies in the "Hi-Tech" sector, many of which were located on the West Coast of the United States (as was Boeing). When the demand for aircraft began to grow again during the next economic upturn, Boeing was unable to re-hire these people and struggled to find appropriately skilled personnel to build its aircraft. Fraher (2019) suggests that the specialised skills of pilots enable them to work autonomously and that they enjoy a high sense of trust and prestige for which that are well rewarded.

Morrell et al. (2004) suggest that the modern employee does not act rationally to maximise utility, but is rather an actor who negotiates complex social scenarios with reference to habit, learned schemata, and values. Steel et al. (2002) argue that high performing employees – the ones that an organisation will want to keep – will become frustrated when their work is not recognised by timely pay rises. A remuneration package that includes performance-based rewards such as bonuses, share options and other incentives may minimise this risk. Southwest Airlines (SWA) has, since its earliest days, had in place mechanisms that make everyone feel part of the SWA family (sends birthday cards to employees) and allows good work to be recognised, not only by managers and supervisors, but also by co-workers and customers (Freiberg and Freiberg, 1996). Back in 1974, SWA was the first airline to introduce a profit-sharing scheme for its employees and in 2018; it paid bonuses of almost 11% of salary to its people, totalling USD 540 million (Southwest Airlines, 2019). SWA sees its employees "not primarily as a source of cost but rather as a source of knowledge for reducing costs and for delivering high quality, reliable service" (Gittell, 2003, p. ix). SWA was ranked at number 2 on the Forbes 2019 list of America's Best Large Employers (Forbes, 2019), reflected in an industry leading 2% staff turnover rate.

Retention of expatriate employees is also very important for airlines. Canadian training organisation CAE estimates that almost 10% of all commercial aviation pilots flying in the Asia Pacific regions are expatriates. In some cases, airlines headquartered in the Middle East rely on expatriates for over 50% of their pilots (CAE, 2017). Where working as an expatriate is unavoidable, multinational organisations

have found a higher level of employee turnover than in the domestically employed population. Naumann (1992) suggests that an employee's intentions to remain at an organisation in the event of an unwelcome posting abroad will be influenced by availability and quality of alternative employment both at home and in other markets. An employee may also be prepared to accept a foreign posting if it can be seen to have a positive effect on his/her career (Naumann, 1992) and there is a clear path to employment back at home.

Another source of dissatisfaction for expatriate employees is difficulties experienced by their spouses and/or families in adjusting to the foreign cultural environment (Naumann, 1992). Unhappy families can add to the pilot's stress levels, leading to greater dissatisfaction with the expatriate job as research has indicated that one of the key elements of a pilot's ability to manage his/her stress levels is the quality of their home life and relationships (Avis et al., 2019).

Sumer and Van De Ven (2007) provided a simple, but effective categorisation of factors to distal, mediating and proximal factors. Distal factors that might influence a pilot to leave an airline might include the type of flying involved (e.g. large jet aircraft operations), the type of airline (e.g. a long established, full service, unionised airline) and the market demand for pilots (Steel et al., 2002). Mediating factors include whether the pilot is most comfortable in a conservative, well-established, legacy airline or might prefer the exciting working environment of a rapidly expanding low cost carrier. The quality of life supported by a job with an airline (e.g. family friendly rosters and vacation time) is certainly one factor that that would influence a pilot's consideration of leaving. Proximal factors include the influence of unemployment rate in the region in which the pilots are based or want to be based.

As Shanker (2019) suggests, pilot retaining is a major task as competitors are constantly trying to lure them away. Airlines in Asia and the Middle East typically offer pay at a premium of between 10% and 15% over airlines in the western hemisphere. Some Chinese airlines have offered salaries that are up to 70% greater than those available in the West, and when other incentives such as accommodation allowances and low or zero levels of income tax are taken into account, many pilots continue to be attracted away from carriers in the West to work in these high growth regions (CAE, 2017). Bloomberg (2016) reported that Chinese airlines were attempting to lure foreign pilots with offers of tax-free salaries in the region of US $310,000 per annum. Recruiters offer Irish pilots tax-free salaries of over US $20,000 per month plus accommodation expenses to fly for a Chinese airline. Western airlines cannot provide similar packages to pilots, therefore, it is important to understand the non-financial goals of the pilots and develop a framework that can help Western carriers, such as Ryanair, retain them.

3. Methodology

3.1 Factors identification process and Questionnaire development

The purpose of this research is to identify, through an in-depth case study of pilots at Europe's largest LCC, the factors that influence pilot retention, so that airlines may understand if it is necessary to re-shape its remuneration and benefits package to maximise the number of pilots who choose to remain at that airline. To confirm the push and pull factors for the pilots, four (4) in-depth exploratory semi-structured interviews were conducted with five (5) further interviews taking place during the COVID-19 crisis (Appendix 1) that were given the factors as listed in Figure 1 and were asked to confirm or amend them. Each interview lasted approximately one hour. Prior to conducting the actual interviews, two preliminary unstructured interviews were conducted with an organisational psychologist and a First Officer to identify the factors.

Based on the interviews results, a questionnaire was developed. The questionnaire is based on six (6) main factor categories, each containing five related factors, and with a personal information section

to gather data on gender, age and flying experience. The factor categories (Figure 1) are: 1) Economic, 2) Lifestyle, 3) Professional Opportunity, 4) Recognition, 5) Rosters and 6) Operational. The Roster was considered a very important factor and therefore it was made a new category. The participants were asked to rank the most important factor as 1, the second most important as 2, and on to 5 for the 5th most important.

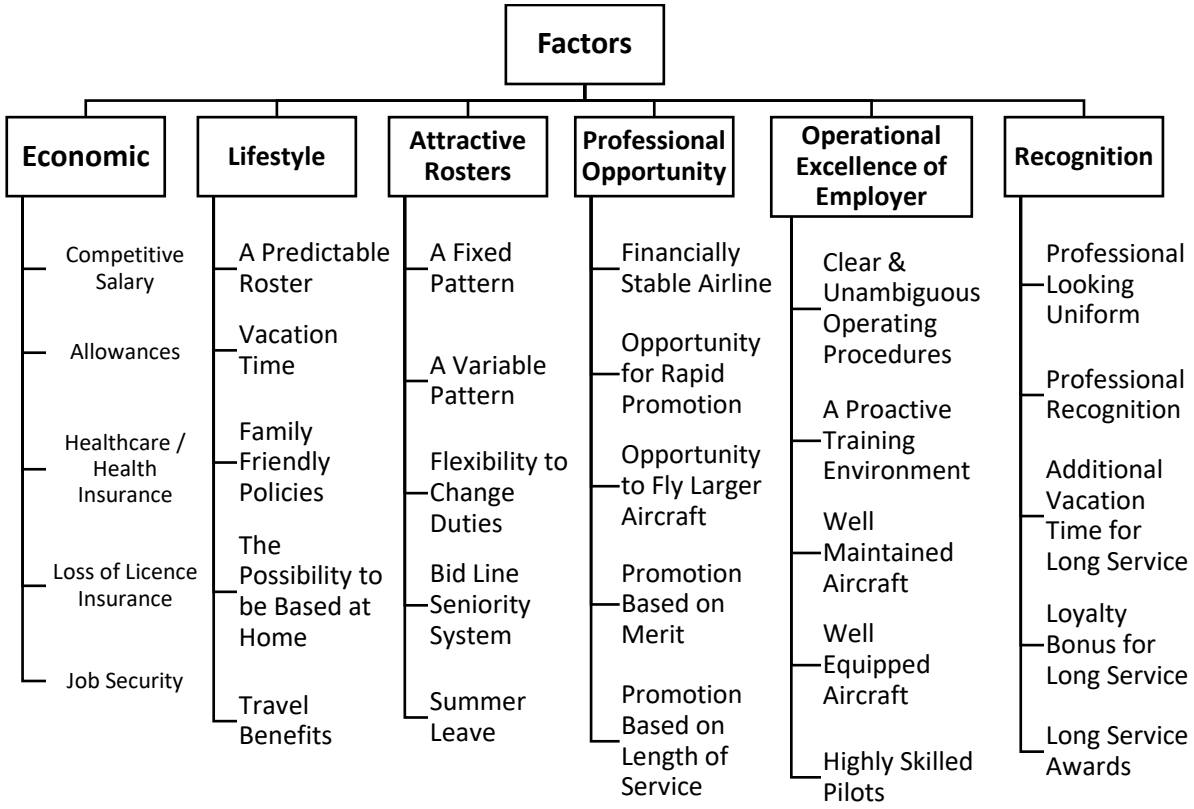

Figure 1: Factor categories and sub categories

3.2 Sample and data collection

The questionnaire stage of the research was conducted using Ryanair pilots. This population is a multi-national group of 5,473 pilots[2] of 53 nationalities who operate from 83 bases in 37 countries in Europe and North Africa. A single company was used to minimise the noise that might be injected into the data because of the different employment policies and organisational cultures of different airline business models. Ryanair is the excellent case study as it has a multinational working force, has mastered the LCC business model and has a unique organisational culture that is embedded and influenced by its business model. Therefore, by selecting Ryanair employed pilots we believe that the results could be proven useful to other LCCs.

Permission from Ryanair to conduct and circulate the survey was granted. The online survey allowed the same questionnaire to be posed to a large number of pilots, across a wide geographic spread. The survey link was circulated by Ryanair to the over 1,600 Ryanair pilots who were scheduled to undergo flight simulator checks between 1st April and 31st May 2019. This ensured that potential participants were selected at random as these simulator checks are scheduled to comply with the regulatory requirement for all pilots to undergo such checks every six months. The determining factor in who

[2] Source: Ryanair as at 28 May 2019

was a potential participant in this research was the month that the pilot joined Ryanair, as this drives the six-monthly schedule of simulator checks.

The response rate was 24.6% (i.e. 394 pilots) out of 1,600 pilots that were invited to participate. Overall, the nationalities of the research participants were reflective of the overall Ryanair pilot population although British and Irish pilots were under-represented in the survey population while Belgians, French and Italians were over-represented. Captains were also slightly over-represented. Within the survey population, percentages for age and gender tracked the overall Ryanair pilot population.

The database was established by using SPSS24.0 statistical software. To analyse whether the difference in the factor evaluation per demographic group was statistically significant, the Mann-Whitney and Krustal-Wallis tests were applied. The Mann-Whitney test and The Kruskal–Wallis rank test are considered non-parametric equivalents of the parametric Independent Sample t-test and One-way Analysis of Variance (ANOVA) (Hollander and Wolfe, 1999). A full statistical assessment of the Krustal-Wallis and Mann-Whitney tests of the six factor categories according to rank, are illustrated in Appendix 2 and Appendix 3 respectively, while Appendix 4 illustrates the Krustal-Wallis test of the six factor categories according to the number of years of commercial flying experience.

The survey followed all the research ethics principles and requirements. Interview participants were informed about the aim and nature of the study and were given the option to remain anonymous. Survey participants were informed about the voluntary nature of the study, they were assured about their anonymity and GDPR was respected. The language of the survey did not pose any limitations on the study as all commercial pilots are required to have a minimum level of English language competency (ICAO, 2010) and the all the questions were kept as simply phrased as possible. Approval from Ryanair to circulate the survey was also obtained.

4. Results and Discussion

Out of 394 questionnaire respondents, 375 (95.18%) were male and 19 (4.82%) were female. At just under 5%, these percentages are very similar to the gender split (5%) in the Ryanair pilot population, and the global pilot gender split. Of 394 pilots who submitted a survey response, the most common age group was 25–34 years with 47.46% falling into this category (Table 1). At the other end of the pilot age scale, just 18% to 19% of Ryanair / survey sample pilots were over the age of 45 while the global figure for pilots over 50 years of age is approximately 40%. The younger age distribution for the Ryanair / survey sample pilots is reflective of the fact that LCC Ryanair is growing very quickly and must attract new pilots to operate its ever-increasing fleet that is largely based in Europe, which has the youngest pilots on average of any region worldwide.

Out of the 394 pilots that responded to the survey, 203 (51.52%) were Captains, 183 (46.45%) were First Officers (FOs) and 8 (2.03%) were Second Officers (2Os). The mean commercial flying experience level was 9.26 years and there is a wide range in experience with 47% of the sample having 0-5 years of commercial flying experience, 33% 6-15 years, 17% 16-30 years and 3% having 31-45 years of commercial flying experience. This experience gradient is reflective of the distribution of rank among the survey participants with 51.52% being Captains and 53.05% having 6 or more years of commercial flying experience. This is not unexpected as Ryanair pilots will very often transition from low hours' cadets to Captains in approximately 5 years.

		Sample (n=394)	Ryanair (n=5,473)
Age group	<25	9.64%	10%
	25 – 34	47.46%	48%
	35 – 44	23.86%	24%
	45 – 54	13.45%	13%
	>55	5.59%	5%
Rank	Captain	51.52%	48.74%
	First Officer	46.45%	49.46%
	2nd Officer	2.03%	1.81%

Table 1: Age group and Pilot Rank of sample and population

The 394 pilots that participated in the researcher's survey were born in 42 countries. The Ryanair general pilot population contains 52 nationalities. In both cases, the majority are from European Union Member States or bordering countries such as Andorra, Russia and Serbia. The distribution of these nationalities is set out in Table 2. Although some nationalities appear to be over-represented in the survey, there are no statistically significant differences between the national representation in the survey sample and in the general Ryanair pilot population.

Country	Survey %	Ryanair	Country	Survey %	Ryanair %
Austria	0.76%	0.93%	**Luxembourg**	0.25%	0.24%
Belgium	6.35%	4.20%	**Malta**	0.25%	0.73%
Bulgaria	0.25%	0.37%	**Netherlands**	4.82%	6.19%
Croatia	0.51%	0.15%	**Norway**	0.00%	0.68%
Cyprus	0.51%	0.51%	**Poland**	2.54%	4.09%
Czech	0.76%	1.08%	**Portugal**	2.03%	2.52%
Denmark	0.76%	1.90%	**Romania**	1.78%	0.93%
Estonia	0.00%	0.15%	**Slovakia**	0.51%	1.08%
Finland	0.00%	0.35%	**Slovenia**	1.02%	0.33%
France	6.35%	5.96%	**Spain**	8.63%	10.05%
Germany	5.84%	6.92%	**Sweden**	3.05%	3.51%
Greece	0.51%	1.48%	**Switzerland**	0.51%	0.13%
Hungary	1.52%	1.02%	**UK**	13.71%	18.93%
Iceland	0.25%	0.04%	**Other Europe**	0.76%	0.57%
Ireland	4.06%	6.91%	**Africa**	1.78%	0.18%
Italy	24.37%	16.30%	**Asia**	1.78%	0.24%
Latvia	0.00%	0.16%	**North America**	1.02%	0.11%
Lithuania	0.25%	0.31%	**South America**	2.54%	0.77%

Table 2: Pilot Nationality Distribution

The 394 survey participants ranked the factors that influence a Pilot to join and remain with an airline in order of importance, where the most important factor is 1, the second most important as 2, and on to 6 for the 6th most important. Taking the mean score as awarded by the survey participants, the lowest and therefore the most important factor to them was Lifestyle (2.58) with Economic (2.88) a close second and Attractive Rosters (3.19) in third place as shown in Table 3. All interviewees of the COVID-19 follow up validated the ranked factors and highlighted that it is not very clear if the economic factor would be ranked higher than the lifestyle factors.

Influencing Factor	N	Min	Max	Mean	SD
Lifestyle	394	1.00	6.00	2.58	1.67
Economic (Salary & Benefits)	394	1.00	6.00	2.88	1.38
Attractive Rosters	394	1.00	6.00	3.19	1.52
Professional Opportunity	394	1.00	6.00	3.37	1.58
Operational Excellence of Employer	394	1.00	6.00	4.28	1.48
Recognition	394	1.00	6.00	4.70	1.56

Table 3: General factors rank of importance

The survey questionnaire was configured to require a whole number between 1 (minimum) and 5 (maximum) to be entered as the ranking with the lowest ranking being applied to the most important factor whose results are illustrated in Table 4. Based on the mean across all factors, the most important sub-factor for the pilots is fixed pattern with a mean of 1.69 as shown in Table 4. This reflects the importance that they attach to the predictability that a fixed pattern brings to their lives. Maslow (1943) called this a self-actualisation motivation need. It allows flight crews to arrange holidays, family events, but also get sufficient rest. Roster predictability also provides the pilots with a feeling of being in control of their working lives, something that Captain Caul referred to his interview and he highlighted the importance of the widely appreciated Ryanair roster. Capt. Conway suggests that the vast majority of pilots at Ryanair were most appreciative with the fixed roster pattern of 5 days-on followed by 4 days-off and that although no one would turn down a pay increase, they were reasonably content with the pay rates. The roster has been used extensively as a recruitment tool by Ryanair.

In the category of lifestyle factors, the most important factor to participants was the possibility to be based at home (2.04). This was also noted as being an important factor in the interviews with Captains A, Caul and Conway. Capt. Caul stated that some Scandinavian First Officers were not going forward for promotion because there was no room for more Captains at their home base and they knew that they would have to move to a new base as a Captain. They did not want to leave their home base so they chose to forego the promotion and the pay increase that went with it. First Officer A said that young pilots with no commitments do not mind being based somewhere else, but in the long term many of them prefer being transferred to a base closer to home. According to Capt. Craven pilots, where possible, wanted to be based at home. In most cases if they did go abroad to work, they left their families back and commuted and missing many family events. A Predictable Roster (2.31) was the second most important factor in the lifestyle category.

Taking the mean score as awarded by the survey participants, the lowest and therefore the most important economic factor to them in the economic category was Job Security (1.97) with a Competitive Salary (2.10) a close second and provision of Healthcare / Health Insurance (3.52) a distant third as outlined in Table 4. These factors align with Maslow's physiological and safety needs, Alderfer's Existence needs, and Herzberg's Hygiene factors. The strength of the desire for job security among pilots is understandable, especially given the large number of recent European airline failures, the airline vulnerability to external shocks (e.g. COVID-19) and the disruption to a pilot's life caused by having to move to a new airline, possibly in another country.

The pilots ranked the financially stable airline factor as very important (1.78). This is understandable given that even though 2018 marked the 9th consecutive year of profits for the global airline industry, several European Airlines closed down. Pilots from the insolvent Air Berlin, Darwin Airlines, Monarch Airlines, Primera Air, Cobalt, Small Planet, Germania, Flybmi and WOW Air have had to find employment elsewhere, often having to move away from their domiciled country to do so. Interviewee Lt. Col. Macintryre suggests that considering the implications of COVID-19, the financial performance of an airline is particularly important for pilots when selecting an airline. Fist Officer A also expressed concerns for the employability of new students coming out flight schools with no flying hours, and those pilots with little flying experience. Therefore, financial stability of the airline provides

better security to employees, even for an airline like Ryanair that reacts to crises by adjusting operations and workforce.

Factors	Sub factor	N	Min	Max	Mean	SD
Lifestyle	Based at Home	394	1.00	5.00	2.04	1.46
Lifestyle	Predictable Roster	394	1.00	5.00	2.31	1.11
Lifestyle	Vacation Time	394	1.00	5.00	3.09	0.91
Lifestyle	Family Friendly Policies	394	1.00	5.00	3.54	1.22
Lifestyle	Travel Benefits	394	1.00	5.00	4.02	1.27
Economic	Job Security	394	1.00	5.00	1.97	1.30
Economic	Salary	394	1.00	5.00	2.10	1.20
Economic	Healthcare / Health Insurance	394	1.00	5.00	3.52	1.03
Economic	Loss of Licence Insurance	394	1.00	5.00	3.69	1.14
Economic	Allowances	394	1.00	5.00	3.72	1.19
Rosters	Fixed pattern	394	1.00	5.00	1.69	1.31
Rosters	Flexibility to Change	394	1.00	5.00	2.78	0.95
Rosters	Summer Leave	394	1.00	5.00	2.97	1.09
Rosters	Bid Line Seniority	394	1.00	5.00	3.27	1.01
Rosters	Variable pattern	394	1.00	5.00	4.29	1.31
Professional	Financially Stable Airline	394	1.00	5.00	1.78	1.25
Professional	Promotion on Merit	394	1.00	5.00	2.99	1.11
Professional	Rapid Promotion	394	1.00	5.00	3.04	1.17
Professional	Promotion on Length of Service	394	1.00	5.00	3.38	1.31
Professional	Fly Larger aircraft	394	1.00	5.00	3.81	1.35
Operational	Well Maintained a/c	394	1.00	5.00	2.29	1.21
Operational	Clear Ops Procedures	394	1.00	5.00	2.93	1.47
Operational	Proactive Training	394	1.00	5.00	2.95	1.18
Operational	Highly Skilled Pilots	394	1.00	5.00	2.95	1.47
Operational	Well-equipped a/c	394	1.00	5.00	3.88	1.25
Recognition	Professional Recognition	394	1.00	5.00	2.05	1.35
Recognition	Loyalty Bonus for Long Service	394	1.00	5.00	2.42	1.15
Recognition	Extra Vacation for Long Service	394	1.00	5.00	3.12	1.14
Recognition	Long Service Awards	394	1.00	5.00	3.39	1.08
Recognition	Uniform	394	1.00	5.00	4.02	1.41

Table 4: Sub-Factors rank of importance

Maslow discussed the importance of higher order esteem needs, something that is very evident in pilots that on average marked that factor with 2.05. Promotional Opportunity Based on Merit (2.99) and Opportunity for Rapid Promotion (3.04) are also important factors. A desire for merit-based promotion can be explained by the process theories of motivation, particularly Adam's equity theory and Hackman and Oldham's Job Characteristics model. Rapid promotion is likely to be attractive to younger pilots who strive for promotion to Captain for the financial uplift and professional recognition this will bring as confirmed by the interviewees Capts. Caul, Conway and Craven.

It is interesting that a Bid Line Seniority System that allocates preferential duties to those higher up a seniority list was only deemed to be the fourth most important factor in the recognition category by the participants. In many airlines, the seniority system acts as a reason to stay, particularly for older and longer serving pilots, as to depart would mean being hierarchically impacted as they may have to recommence their employment at the bottom of the list at the next airline. One reason for the relative lack of importance attached by the survey sample might be that they have an age profile that is younger than the global average and so would not really benefit from a seniority system.

The operational excellence factors are very closely ranked with similar importance for the pilots. Capt. A suggests that well trained pilots, operating well-maintained aircraft with clearly stated operating procedures will have higher rates of job satisfaction and therefore employee retention. The recognition category was the least important factor for the pilots.

The Kruskal-Wallis Test is non-parametric that encapsulates clusters that are composed of three or more groups and therefore applied here to examine differences in responses between pilots in three different age groups (18-34, 35-54, 55+) showed that there is a statistically significant difference between them as shown in Table 5. There was a significant difference between the ranks given by age groups for the item "Employer's Operational Excellence", with over 55s giving it a higher rank than their younger colleagues do. The age group 35-54 seems to value professional opportunities less than the younger and older pilots do. Lt. Col. Macintyre suggests that early career pilots are actively looking to be promoted to the higher paid rank of Captain and later career pilots to trainers and Chief pilots.

	Under 34 (n=225)		**35-54 (n=94)**		**55+ (n=75)**		**P-Value**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	
Economic	2.88	1.34	2.72	1.36	3.05	1.51	0.33
Lifestyle	2.51	1.64	2.46	1.64	2.96	1.77	0.09
Professional Opportunity	3.17	1.59	3.70	1.47	3.53	1.62	**0.02**
Recognition	4.87	1.43	4.53	1.60	4.41	1.79	0.08
Roster	3.20	1.52	3.12	1.56	3.23	1.49	0.79
Employer's Operational Excellence	4.36	1.42	4.47	1.43	3.81	1.64	**0.02**

Table 5: Kruskal-Wallis Test of factor categories according to age groups

Career development models suggest that employees at an early career stage do not hesitate to leave an organisation and therefore there is a higher turnover, whereas employees at later career stages have psychological and behavioural linkages to the organisation and structural variables such as investments and lack of opportunity elsewhere so therefore tend to stay (Cohen, 1991). We found that professional opportunity is more important in influencing retention for pilots in the under 25 age group. First Officers are more likely to stay if they can see a path to promotion to Captain, so that they can increase their earnings and pay back their training loans more quickly. Capt. O'Shea, Capt. Caul and Lt Cl Macintyre all concur that career progression within Ryanair is rapid as the pilots gather the necessary flying hours in a much more precipitous manner.

In the Economics category, "Job Security" was ranked higher by FOs and is statistically significant. Conversely they ranked "Allowances" lower than their senior colleagues, which is also statistically significant as documented in Table 6 by a Mann-Whitney Test which compares the differences between two groups (Captains and First Officers). Particularly in light of COVID-19, job security is of high importance for the young pilots. The interview from Captain A suggests that First Officers focus on re-paying training loans and that financial security is important. He also suggests that those pilots are building their flying hours to facilitate rapid promotion to the higher paid rank of Captain.

Interviewee Claudio Noto suggests that pilots working for Low Cost Carriers (LCCs) may have less job security, may face contracts on an hourly basis, and may encounter less attractive working conditions than pilots working for Full Service Network Carriers (FSNC). On the other hand, he suggests that they may faster progress in their careers, which may give them a more favourable position on international labour markets: At least on the short-haul market, a pilot may achieve a Commander/Captain position at an LCC (or smaller airline) faster than at a FSNC.

Young pilots see Ryanair as an important stepping-stone to gain flying experience and progress their career according to Capt. O'Shea. He also suggests that Ryanair pilots' employability is very high due to the rigorous training and the high operational and safety standards Ryanair has. Until they gather enough hours, young pilots need a financially secure airline. Allowances were not particularly important to either Captains or First Officers but the difference was still significant, suggesting that

FOs are more likely to see Allowances as a marginal added benefit allowing them to make savings whereas Captains, with higher base salaries would not need to focus on these extras as much.

	Captain (n=203)		FO (n=191)		P-Value
	Mean	SD	Mean	SD	
Salary	2.05	1.23	2.15	1.17	0.16
Allowances	3.55	1.19	3.91	1.17	**0.00**
Healthcare / Health Insurance	3.56	1.04	3.48	1.01	0.49
Loss of Licence Insurance	3.70	1.15	3.68	1.12	0.77
Job Security	2.14	1.39	1.79	1.16	**0.02**

Table 6: Mann-Whitney Test of economic category according to rank

A Kruskal Wallis Test was also used to examine differences in responses between pilots with three different levels of experience (0-5, 6-15, 15+ years) (Table 7). Pilots with longer experience ranked the variable pattern higher, whereas pilots with less years of experience ranked the 'flexibility to change' factor higher than their longer serving colleagues. Interviewee First Officer A who has been working for Ryanair only for few months has been very enthusiastic working for the carrier because of its favourable rostering schedule with five days on followed by four days off, which works very well for the cockpit crew. For pilots with many years of experience the bid line seniority is more important than for their less experienced colleagues.

	0-5 (n=185)		6-15 (n=132)		16+ (n=77)		P-Value
	Mean	SD	Mean	SD	Mean	SD	
Fixed Pattern	1.56	1.18	1.66	1.27	2.05	1.60	0.09
Variable Pattern	4.38	1.15	4.42	1.22	3.84	1.66	**0.02**
Flexibility to Change	2.60	0.93	2.95	0.99	2.90	0.87	**0.00**
Bid Line Seniority	3.41	1.03	3.14	0.96	3.16	0.99	**0.02**
Summer Leave	3.04	1.04	2.83	1.08	3.05	1.19	0.17

Table 7: Kruskal-Wallis Test of Roster category according to years of commercial experience

A number of European pilots emigrate to Asian or Middle East carriers. The majority of the interviewees gave examples of pilots leaving Ryanair to join Asian carriers, but later (usually after 5 years) returning to Europe and some to Ryanair. Those 'boomerang' employees left initially because of higher salary packages, but returned either because they did not appreciate the working conditions (many referred to a punishment culture) or because they wanted to return home.

At a rudimentary level, a reasonably competitive remuneration package and good working conditions, broadly aligned with Maslow's physiological and safety needs, will be necessary to persuade appropriately skilled pilots to join and continue to work for the organisation. Once these needs have been satisfied, many employees will be motivated by higher order needs such as family friendly policies, opportunities for promotion and recognition, those roughly aligned with Maslow's belongingness, esteem and self-actualisation needs.

5. Conclusions and recommendations

Over half of the new aircraft that are expected to be delivered out to 2037 will be purchased or leased by airlines in the Middle East and Asia, regions where there is a shortage of trained indigenous pilots. Middle Eastern and Asian state backed airlines are currently offering extraordinarily generous pay and benefits packages to lure experienced pilots to come and fly for them, which cannot be matched by European airlines that operate on a purely commercial basis. This is causing serious pilot retention problems for many European airlines. As they cannot compete financially with the state-funded

airlines from the East, European carriers must develop retention strategies that do not depend solely on financial remuneration.

The aim of this research project was to identify the factors influencing pilot retention, using Europe's largest LCC as a case-study, and investigate if these factors differ on the basis of the seniority and commercial flying experience of the pilot. It is important to understand the factors that motivate pilots if an airline is to develop a sustainable retention strategy and avoid losing some of its most important assets. Job satisfaction has been shown to have a significant effect on personnel retention and airlines will, where practicable, have to ensure that their employees can be based at home, are remunerated appropriately and equitably, have a reasonably good working environment and receive recognition for their achievements in becoming a pilot and for the part that they play in the success of the business.

According to the survey and interview results, the most important retention-influencing factors for pilots are: a) being based at home, b) a competitive salary, c) job security, d) working a fixed roster pattern, e) a financially stable employer, f) recognition as a professional by their employer and g) a good work environment through well maintained aircraft and skilled colleagues. Statistical tests indicated that younger pilots placed a greater importance on job security and financial benefits. Pilots over 55 indicated a preference for a competitive salary, recognition of length of service and reduction of pilot workload.

Shanker (2019) found that offering positive work culture, opportunities for individual growth and development, salary benefit package, opportunity for self-achievement are the main retention strategies for Indian pilots. Based on the results of this research project we suggest that airlines consider pilot feedback better and build a strong professional relationship with them. HR departments need to capitalise on Job embeddedness principles and investigate how a pilot work relates to the airline's values and goals, how a pilot is connected to other activities and the level of disruption caused if a pilot was to quit his/her job. Understanding these key factors in job embeddedness will permit, HR departments to assess to what extent pilots are at risk of leaving the airline and how best to strengthen pilot retention. As Ryanair discovered when they attempted to stem pilot turnover and hold off unionisation and industrial action with a 20% pay increase and failed, it is not all about the remuneration. At the same time, airlines need to accept that not all pilots want the same thing and move away from a one-size-fits-all pay and benefits policy. Offering a matrix of pay and benefits, which have the same net cost to the business, from which the pilot can choose the package that is most suitable or attractive to them, can support the recruitment and retention of pilots. Finally, airlines need to understand that pilot's requirements can vary over time and they need to allow them to amend their pay, benefits and working conditions at the start of each year. This will better meet pilots' changing needs without significant implications for airline operations.

This study has important implications for theory development in the neglected areas of commercial pilots. In particular, it highlighted the need to retain key personnel in the airline sector and shed light on the complex factors that pilots identify as significant motivators to remain at an airline. This study has some limitations that should be addressed in future research to advance further understanding of pilot recruitment and retention strategies. Although our research identified the reasons for pilots to stay at Ryanair and tried to incorporate the COVID-19 disruption, it does not properly incorporate the reduced bargaining power of pilots in light of the forthcoming COVID-19 related labour relations implications. Therefore, future research should expand on how the resulting contraction and restructuring of carriers will affect the movement of high skilled employees like pilots and revaluate the order of importance for the factors identified in this paper.

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Appendices

Appendix 1: Interviewees list

Exploratory interviews	
1. Capt. Ray Conway	Capt. Conway is the Director Flight Standards & Chief Pilot at Ryanair and has 33 years of experience at Ryanair.
2. Capt. Alan Caul	Capt. Caul has served as base captain in Dublin, pilot trainer and is currently the Chief Pilot of Ryanair Sun.
3. Capt. Kevin Craven	Capt. Craven is a pilot and aviation consultant who has flown for a number of European airlines and held several Flight Operations Management and training roles at Qatar Airways.
4. Capt. A - Pilot	Captain A has worked as a line captain and a training captain with a number of European Freight, LCC and Full-Service Carrier airlines. Some of these jobs resulted in his becoming an expatriate in parts of Continental Europe. He has also previously worked at a senior level at a flight training school.
COVID-19 Follow up	
5. Lt Col Andrew Macintyre	Andy Macintyre is a qualified pilot with over thirty years of service in the Irish Air Corps and the holder of a commercial pilot's license.
6. Capt. Alan Caul	Capt. Caul has served as base captain in Dublin, pilot trainer and is currently the Chief Pilot of Ryanair Sun.
7. First Officer A - Pilot	First Officer A is a First Officer at Ryanair (since 2019). He left a Chef career to become a commercial pilot and Ryanair is his first airline.
8. Capt. Andy O'Shea	Capt. O'Shea is professional pilot training manager and the chair of the Aircrew Training Policy Group (ATPG). He has been a professional pilot for 40 years including 27 in Ryanair and retired as Head of Training in Ryanair in May 2019.
9. Senior First Officer Claudio Noto	Claudio Noto is a Senior First Officer, Long Haul, with a major European Legacy Airline (since 2007). He serves as a Captain/Military Pilot for the Swiss Air Force Reserve since 2000, currently as a Flight Instructor & Pilot Candidate Assessor. Claudio Noto holds a PhD in air transport and is a Fellow for Aviation Economics at the Center for Aviation Competence (CFAC), University of St. Gallen.

Appendix 2: Kruskal-Wallis Test of factor categories according to age groups

		Under 34 (n=225)		**35-54 (n=94)**		**55+ (n=75)**		**P-Value**
		Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	
General categories	Economic	2.88	1.34	2.72	1.36	3.05	1.51	0.33
	Lifestyle	2.51	1.64	2.46	1.64	2.96	1.77	0.09
	Professional Opportunity	3.17	1.59	3.70	1.47	3.53	1.62	0.02
	Recognition	4.87	1.43	4.53	1.60	4.41	1.79	0.08
	Roster	3.20	1.52	3.12	1.56	3.23	1.49	0.79
	Employer's Operational Excellence	4.36	1.42	4.47	1.43	3.81	1.64	0.02
Economic	Salary	2.07	1.13	2.02	1.26	2.29	1.32	0.28
	Allowances	3.90	1.12	3.54	1.24	3.43	1.25	0.00

	Healthcare / Health Insurance	3.50	1.02	3.69	0.95	3.35	1.11	0.12
	Loss of Licence Insurance	3.76	1.08	3.60	1.25	3.60	1.15	0.53
	Job Security	1.78	1.14	2.15	1.29	2.33	1.62	0.01
Lifestyle	Predictable Roster	2.27	1.07	2.34	1.19	2.39	1.14	0.81
	Vacation Time	3.20	0.94	2.90	0.83	3.01	0.85	0.02
	Family Friendly Policies	3.59	1.21	3.53	1.26	3.41	1.20	0.48
	Based at Home	1.88	1.37	2.15	1.46	2.39	1.68	0.05
	Travel Benefits	4.06	1.16	4.07	1.29	3.80	1.52	0.56
Professional Opportunity	Financially Stable Airline	1.72	1.13	1.82	1.24	1.91	1.57	0.80
	Rapid Promotion	2.93	1.17	3.23	1.20	3.11	1.13	0.14
	Fly Larger aircraft	3.92	1.29	3.77	1.45	3.55	1.40	0.09
	Promotion on Merit	2.96	1.15	2.99	1.09	3.07	1.00	0.78
	Promotion on Length of Service	3.46	1.29	3.19	1.33	3.37	1.32	0.24
Recognition	Uniform	4.13	1.31	4.16	1.31	3.49	1.68	0.01
	Professional Recognition	1.97	1.31	2.09	1.28	2.24	1.53	0.39
	Extra Vacation for Long Service	3.21	1.19	2.96	1.07	3.07	1.07	0.18
	Loyalty Bonus for Long Service	2.33	1.09	2.46	1.26	2.65	1.19	0.14
	Long Service Awards	3.36	1.03	3.34	1.19	3.55	1.07	0.35
Roster	Fixed Pattern	1.54	1.15	1.72	1.32	2.09	1.64	0.04
	Variable Pattern	4.47	1.11	4.22	1.32	3.85	1.69	0.02
	Flexibility to Change	2.66	0.93	3.01	1.04	2.84	0.82	0.01
	Bid Line Seniority	3.35	1.00	3.20	1.06	3.12	0.94	0.10
	Summer Leave	2.99	1.05	2.84	1.08	3.09	1.19	0.26
Employer's Operational Excellence	Clear Ops Procedures	2.94	1.47	3.05	1.47	2.76	1.49	0.47
	Proactive Training	2.87	1.17	3.03	1.14	3.09	1.26	0.27
	Well Maintained a/c	2.27	1.22	2.26	1.12	2.43	1.30	0.65
	Well-equipped a/c	4.03	1.14	3.72	1.36	3.61	1.38	0.05
	Highly Skilled Pilots	2.90	1.46	2.94	1.56	3.11	1.39	0.57

Appendix 3: Mann-Whitney Test of factor categories according to rank

		Captain (n=203)		**FO (n=191)**		**P-Value**
		Mean	**SD**	**Mean**	**SD**	
General categories	Economic	2.84	1.41	2.92	1.35	0.44
	Lifestyle	2.46	1.62	2.71	1.72	0.18
	Professional Opportunity	3.71	1.54	3.00	1.55	0.00
	Recognition	4.57	1.59	4.84	1.52	0.04
	Roster	3.10	1.48	3.28	1.56	0.25
	Employer's Operational Excellence	4.32	1.53	4.25	1.43	0.48
Economic	Salary	2.05	1.23	2.15	1.17	0.16
	Allowances	3.55	1.19	3.91	1.17	0.00

	Healthcare / Health Insurance	3.56	1.04	3.48	1.01	0.49
	Loss of Licence Insurance	3.70	1.15	3.68	1.12	0.77
	Job Security	2.14	1.39	1.79	1.16	0.02
Lifestyle	Predictable Roster	2.34	1.16	2.27	1.06	0.77
	Vacation Time	2.96	0.87	3.24	0.93	0.01
	Family Friendly Policies	3.47	1.17	3.62	1.26	0.14
	Based at Home	2.16	1.53	1.91	1.38	0.07
	Travel Benefits	4.06	1.32	3.97	1.20	0.14
Professional Opportunity	Financially Stable Airline	1.76	1.31	1.79	1.19	0.32
	Rapid Promotion	3.28	1.13	2.79	1.17	0.00
	Fly Larger aircraft	3.73	1.36	3.91	1.34	0.14
	Promotion on Merit	2.95	1.08	3.04	1.14	0.37
	Promotion on Length of Service	3.29	1.35	3.48	1.26	0.16
Recognition	Uniform	4.04	1.42	3.98	1.39	0.60
	Professional Recognition	2.16	1.39	1.93	1.29	0.10
	Extra Vacation for Long Service	3.02	1.13	3.23	1.16	0.06
	Loyalty Bonus for Long Service	2.37	1.13	2.48	1.18	0.35
	Long Service Awards	3.40	1.10	3.37	1.06	0.66
Roster	Fixed Pattern	1.77	1.39	1.60	1.21	0.30
	Variable Pattern	4.23	1.40	4.36	1.20	0.82
	Flexibility to Change	2.95	0.94	2.59	0.93	0.00
	Bid Line Seniority	3.14	0.98	3.40	1.02	0.01
	Summer Leave	2.91	1.12	3.04	1.04	0.16
Employer's Operational Excellence	Clear Ops Procedures	2.92	1.47	2.94	1.47	0.89
	Proactive Training	2.95	1.22	2.96	1.14	0.94
	Well Maintained a/c	2.30	1.17	2.29	1.25	0.81
	Well-equipped a/c	3.83	1.24	3.93	1.26	0.28
	Highly Skilled Pilots	3.01	1.51	2.88	1.43	0.39

Appendix 4: Kruskal-Wallis Test of factor categories according to years of commercial flying experience

		0-5 (n=185)		**6-15 (n=132)**		**16+ (n=77)**		**P-Value**
		Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	
General categories	Economic	2.95	1.38	2.83	1.32	2.81	1.50	0.59
	Lifestyle	2.67	1.74	2.36	1.50	2.74	1.76	0.30
	Professional Opportunity	2.98	1.56	3.70	1.53	3.73	1.53	0.00
	Recognition	4.83	1.45	4.73	1.55	4.32	1.77	0.10
	Roster	3.27	1.54	3.06	1.50	3.21	1.50	0.45
	Employer's Operational Excellence	4.30	1.42	4.32	1.56	4.19	1.51	0.76
Economic	Salary	2.17	1.20	1.98	1.14	2.13	1.29	0.30
	Allowances	3.90	1.13	3.68	1.21	3.38	1.25	0.01
	Healthcare / Health Insurance	3.52	1.05	3.56	0.96	3.44	1.09	0.79

	Loss of Licence Insurance	3.63	1.14	3.79	1.11	3.65	1.18	0.49
	Job Security	1.78	1.13	1.99	1.29	2.40	1.56	0.02
Lifestyle	Predictable Roster	2.30	1.06	2.31	1.13	2.32	1.21	0.97
	Vacation Time	3.25	0.92	2.98	0.90	2.90	0.82	0.01
	Family Friendly Policies	3.59	1.25	3.56	1.20	3.39	1.16	0.32
	Based at Home	1.90	1.41	1.96	1.38	2.51	1.64	0.01
	Travel Benefits	3.95	1.22	4.18	1.16	3.88	1.51	0.17
Professional Opportunity	Financially Stable Airline	1.72	1.16	1.77	1.18	1.91	1.54	0.84
	Rapid Promotion	2.77	1.15	3.32	1.12	3.19	1.18	0.00
	Fly Larger aircraft	3.90	1.32	3.86	1.34	3.52	1.43	0.09
	Promotion on Merit	3.02	1.15	2.90	1.13	3.08	0.97	0.39
	Promotion on Length of Service	3.58	1.21	3.14	1.39	3.30	1.33	0.02
Recognition	Uniform	3.98	1.39	4.30	1.18	3.61	1.66	0.01
	Professional Recognition	1.96	1.28	2.10	1.36	2.18	1.47	0.55
	Extra Vacation for Long Service	3.27	1.18	3.00	1.14	2.97	1.04	0.05
	Loyalty Bonus for Long Service	2.43	1.19	2.28	1.07	2.65	1.18	0.10
	Long Service Awards	3.36	1.05	3.32	1.10	3.58	1.10	0.18
Roster	Fixed Pattern	1.56	1.18	1.66	1.27	2.05	1.60	0.09
	Variable Pattern	4.38	1.15	4.42	1.22	3.84	1.66	0.02
	Flexibility to Change	2.60	0.93	2.95	0.99	2.90	0.87	0.00
	Bid Line Seniority	3.41	1.03	3.14	0.96	3.16	0.99	0.02
	Summer Leave	3.04	1.04	2.83	1.08	3.05	1.19	0.17
Employer's Operational Excellence	Clear Ops Procedures	2.95	1.46	2.91	1.45	2.92	1.55	0.97
	Proactive Training	2.99	1.17	2.86	1.20	3.01	1.19	0.66
	Well Maintained a/c	2.25	1.22	2.28	1.14	2.42	1.29	0.65
	Well-equipped a/c	3.95	1.24	3.94	1.17	3.58	1.38	0.09
	Highly Skilled Pilots	2.85	1.42	3.01	1.56	3.06	1.43	0.49